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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,675	08/10/2001	Kenichi Negoro	01471/LH	3744

1933 7590 05/13/2004

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EXAMINER	
AGUSTIN, PETER VINCENT	
ART UNIT	**PAPER NUMBER**
2652	8

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/925,675	NEGORO ET AL.	
	Examiner	Art Unit	
	Peter Vincent Agustin	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-4 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-4 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 10 August 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 04/05/2004 have been fully considered but they are not persuasive.

2. Independent claim 1 has been amended to emphasize a photodetector (PD) arranged separately from the semiconductor laser. The 102 rejection using Shindo (US 5,592,460) has been traversed with respect to the amended claim on the grounds that the light emitting unit comprises a semiconductor laser and a light detector integrated within a light emitting unit. It should be noted, however, that "integrated" does not mean "not separately provided". Even if Shindo's light emitting unit (11) is considered an "optical block" with interconnected components mounted on a substrate (not stated in Shindo), the photodetector would be "arranged separately" from the semiconductor laser on this "optical block". Furthermore, regarding page 12, lines 3-6, the optical parts GRT, BS', CL' and EL' are not claimed in claim 1.

3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Regarding the arguments against the 103 rejections, the applicant argues references separately not for what they fairly disclose. Shindo is applied for 45 degree angle teaching, while the applicant's focus on providing integral vs separate components is misplaced, as Shikama et al. (hereafter Shikama) (US 4,789,978) shows separately provided elements.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 rejected under 35 U.S.C. 102(b) as being anticipated by Shindo.

Shindo discloses an optical pickup unit (figure 2) comprising: a semiconductor laser (11); a photodetector (column 1, lines 23-24) arranged separately from the semiconductor laser; an objective lens (12); and a rising mirror (14); wherein said optical unit converges a laser beam (13) produced by said semiconductor laser on a signal recording surface (15a) of an optical disc (15) through said objective lens by reflecting said laser beam by a reflecting surface of said rising mirror, and detects a return beam from said signal recording surface by said photodetector by reflecting said return beam by the reflecting surface of said rising mirror, wherein a rising angle between the reflecting surface of said rising mirror and a lower surface of said optical pickup unit is smaller than 45 degrees; and wherein optical parts including said photodetector are arranged in an optical base with said optical parts inclined with respect to said optical base such that said optical parts do not extend downwards from said lower surface of said pickup unit.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1 & 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Shikama in view of Shindo.

In regard to claim 1, Shikama discloses an optical pickup unit (figure 3a) comprising: a semiconductor laser (40); a photodetector (19) arranged separately from the semiconductor laser; an objective lens (10); and a rising mirror (9); wherein said optical unit converges a laser beam (2) produced by said semiconductor laser on a signal recording surface (13) of an optical disc (12) through said objective lens by reflecting said laser beam by a reflecting surface of said rising mirror, and detects a return beam from said signal recording surface by said photodetector by reflecting said return beam by the reflecting surface of said rising mirror. Shikama also discloses that the photodetector is arranged in an optical base. Shikama, however, does not disclose that a rising angle between the reflecting surface of said rising mirror and a lower surface of said optical pickup unit is smaller than 45 degrees; and wherein optical parts are arranged in an optical base with said optical parts inclined with respect to said optical base such that said optical parts do not extend downwards from said lower surface of said optical pickup unit.

Shindo discloses an optical pickup unit (figure 2) wherein a rising angle between the reflecting surface of a rising mirror (14) and a lower surface of said optical pickup unit is smaller than 45 degrees; and wherein optical parts are arranged in an optical base with said optical parts inclined with respect to said optical base such that said optical parts do not extend downwards from said lower surface of said optical pickup unit. It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have arranged the angle between the rising mirror and the lower surface of the optical pickup unit of Shikama to be

smaller than 45 degrees, as suggested by Shindo, the motivation being to reduce the thickness and size of the optical pickup unit.

In regard to claim 2, Shikama (figure 3a) discloses a diffraction grating (3) for separating said laser beam produced by said semiconductor laser into three laser beams (see also figure 3b), a beam splitter (4) for reflecting said three laser beams from said diffraction grating and for transmitting said return beam, a collimator lens (7) disposed between said beam splitter and said rising mirror, and a concave lens (18) disposed between said beam splitter and said photodetector.

8. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Shikama & Shindo as applied to claim 2 above, and further in view of Date et al. (hereafter Date) (US 5,420,848).

For a description of Shikama & Shindo, see the rejection above. However, Shikama & Shindo do not disclose a forward sensor for monitoring a light amount of the laser beam which is produced by said semiconductor laser and which is partially transmitted through said beam splitter.

Date (figure 1) discloses a forward sensor (104) for monitoring a light amount (173) of a laser beam (171 & 172) which is produced by a semiconductor laser (101) and which is partially transmitted through a beam splitter (103). It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have added the forward sensor of Date to the optical parts of Shikama & Shindo, the motivation being to control the amount of light emitted by the semiconductor laser based on the amount of light detected by continuous monitoring.

9. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Shindo as applied to claim 1 above, and further in view of Funato (US 6,072,579).

For a description of Shindo, see the rejection above. However, Shindo does not disclose that the photodetector includes a plurality of signal taking-out pins which are arranged horizontally with a constant gap therebetween.

Funato (figure 1B) discloses a photodetector (10) having a plurality of signal taking-out pins which are arranged horizontally with a constant gap therebetween. It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have added the signal taking-out pins of Funato to the photodetector of Shindo, the motivation being to provide an electrical connection means between the photodetector and the optical pickup unit.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (703) 305-8980. The examiner can normally be reached on Monday thru Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PVA
04/23/2004

W. R. YOUNG
PRIMARY EXAMINER